

ABSTRACT

Visible watermarking techniques for digital images and video operate on decoded transform coefficients and maintain the watermarked data in the same compressed format as the original so that the watermarked data can be viewed with standard tools and applications. Moreover, for most of the techniques presented, the watermarked data has exactly the same compressed size as the original. The watermark can be inserted and removed using a key for applications requiring content protection. The watermark insertion and removal algorithms are very efficient and exploit some features of compressed data formats (such as JPEG and MPEG) which allow most of the work to be done in the compressed domain.